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ABSTRACT

Based on an evaluation system developed by a university educator in vocational education and used in the 1971 report of the Georgia State Advisory Council for Vocational Education, this description of eight evaluation needs for vocational education presents five directional goals, six goals for various educational levels, and six goals for supportive activities. As part of a management system, evaluation is involved in establishing, implementing, and assessing goals. Provision of criterion questions with quantitative measures for each goal is suggested, and feedback from state staff and local administrators in vocational education is required. Procedures for data collection and utilization are described. Diagrams and tables present the data, and a bibliography is included. (AG)

ED 065709

AN EVALUATION SYSTEM

FOR

STATE ADVISORY COUNCILS OF VOCATIONAL EDUCATION

J. Marvin Robertson

VT016171

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FOR

STATE ADVISORY COUNCILS OF VOCATIONAL EDUCATION

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FOREWARD

This publication is based on the author's development of an evaluation system for the Georgia State Advisory Council for Vocational Education. The 1971 report of the Georgia Council was based on the system herein reported. The system has been generalized from the developmental experience to provide procedures that could be replicated by other advisory councils for Vocational Education.

Contributions of Mr. Don Cargill, Executive Director of the Georgia Council, Mr. Robert Hudson, Vice-Chairman of the Georgia Council, and Dr. Gene Bottoms, Associate Director of Vocational Education, Georgia State Department of Vocational Education are acknowledged by the author.

Mr. Anthony Gergley worked as graduate assistant on the project.

-- J. Marvin Robertson

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AN EVALUATION SYSTEM

FOR STATE ADVISORY COUNCILS OF VOCATIONAL EDUCATION

Introduction

The 1968 Ammendments to the Vocational Education Act of 1963 created and funded independent state advisory councils for vocational education. A prime task assigned to that council by legislation was to annually evaluate vocational education, report the results of the evaluation and make recommendations based on the evaluation. In addition the Council is to advise the State Board on development of the State Plan for Vocational Education and to advise on policy matters relevant to administration of that plan. The State Council must hold at least one public meeting each year to give the public the opportunity to express views concerning vocational education. The Council is given funding to carry out activities and is authorized to contract for services necessary to enable them to carry out the evaluation functions.

Evans (1969) suggested that of the duties specified for State Advisory Councils, the annual evaluation report is one quite likely to be significant. The Council report must evaluate the effectiveness of vocational education in terms of annual and long range program plans and recommend changes in programs, services, and activities indicated by the evaluation results. Burt (1969) suggested that the major responsibilities of the State Advisory Councils are in the field of evaluation. It is from the evaluation that most other duties, activities, responsibilities, and status must be derived.

This is a new concept in education. The Councils are new and mandated evaluation is a new concept. They have designated responsibilities clearly defined by federal law unlike any previous advisory councils, many of which were inactive, not influential, or otherwise ineffective. The new Councils are free to act--they must act.

Composition of State Advisory Councils

Legislation mandates that certain groups be represented on the Councils. Evans (1969) identified four general types of legally specified members. The first type are from those to be served by vocational education--persons representative of the poor and disadvantaged, persons with knowledge of the needs of the physically and mentally handicapped, persons involved in state industrial and economic development, and persons who know the problems of management and labor.

The second type represents those closely involved with vocational education. Membership is drawn from persons familiar with programs at the local operational level, and persons knowledgeable about vocational education but not involved in administration of programs.

The third type represents educational agencies within which vocational education exists--post secondary and adult agencies or institutions, school boards, and local school systems.

The fourth type represents other state agencies involved in vocational and manpower training, apparently in an attempt to secure coordination at the state level.

As mandated by legislation, the Council brings together from nine to thirty-five persons of diverse backgrounds representing a variety of views of vocational education. In most cases these persons are employed only

part-time for conducting activities of the Council. Such a group can be expected to describe vocational education on the basis of individual experience.

One can expect a State Advisory Council to bring together a diversity of view points; a variety of experiences with and knowledge of vocational education; differing value systems; more expertise in his or her own area than in vocational education; and varying amounts of time to devote to Council activities. The Council will ordinarily have to operate with limited financial resources and with legal authority only in an advisory capacity.

With all foregoing limitations, the Council is expected to be an autonomous group and to conduct an independent evaluation of a statewide program of vocational education. The new role has State Councils struggling with questions of identity, of status, or organization, and of responsibilities. Effective relationships with State Department of Education staffs and other manpower and educational groups must be developed congruent with role identification.

Need for an Evaluation System

The State Advisory Councils formed under the 1968 Vocational Amendments are new entities with new responsibilities. An adequate evaluation system will be needed to meet the unique responsiblities and unique characteristics of State Advisory Councils. That is the focus of the system described in this publication.

Systems of evaluation have been developed for use in vocational education but never for the specific needs of State Advisory Councils. Generally, systems have provided decision makers in the state department with needed data, provided information for accreditation, evaluated local programs by

some criteria, and provided cost-benefit information, as well as fulfilling a number of other purposes.

Evaluation by a legally constituted advisory group that has no administrative decision-making authority is a unique concept. Such a system should:

1. Assist the Council to develop a set of goals for vocational education that reflects the Council's expectations for accomplishments by vocational education.

2. Assist the Council to understand the state planning documents so that the Council knows the directions in which the state intends to move.

3. Increase the Council's knowledge of the present status of vocational education in the state in relation to Council goals and state plans.

4. Establish measures of progress toward goal attainment that are acceptable to the Council and to vocational educators.

5. Provide the framework and data for Council responsibilities such as advising on the State plan, reporting, making recommendations and public relations activities.

6. Make maximum use of limited Council resources.

7. Assist the Council to maintain independence as the public's voice in shaping priorities in vocational education.

8. Maintain a set of long range objectives and continuity of action with a Council membership that undergoes regular changes.

Evaluation has been described as the master role of State Advisory Councils. It is from this role, as stated in the Vocational Amendments of 1968, that most of the other roles of the Councils take their cue. The role of evaluation permeates all other Council activities. An evaluation system that contains the eight characteristics listed should serve the Council's master role.

Overview of the System

One way to place the system in perspective is to view evaluation as a component of a management system. (See Figure I). The cycle is entered in the Goal Setting Phase. The Planning Phase and Implementing Phase are left to the State Department of Education as the legally constituted administrative body. The Assessment Phase is a process of determining measures of progress toward goal attainment, collecting needed data, and analyzing and interpreting results in relation to goals.

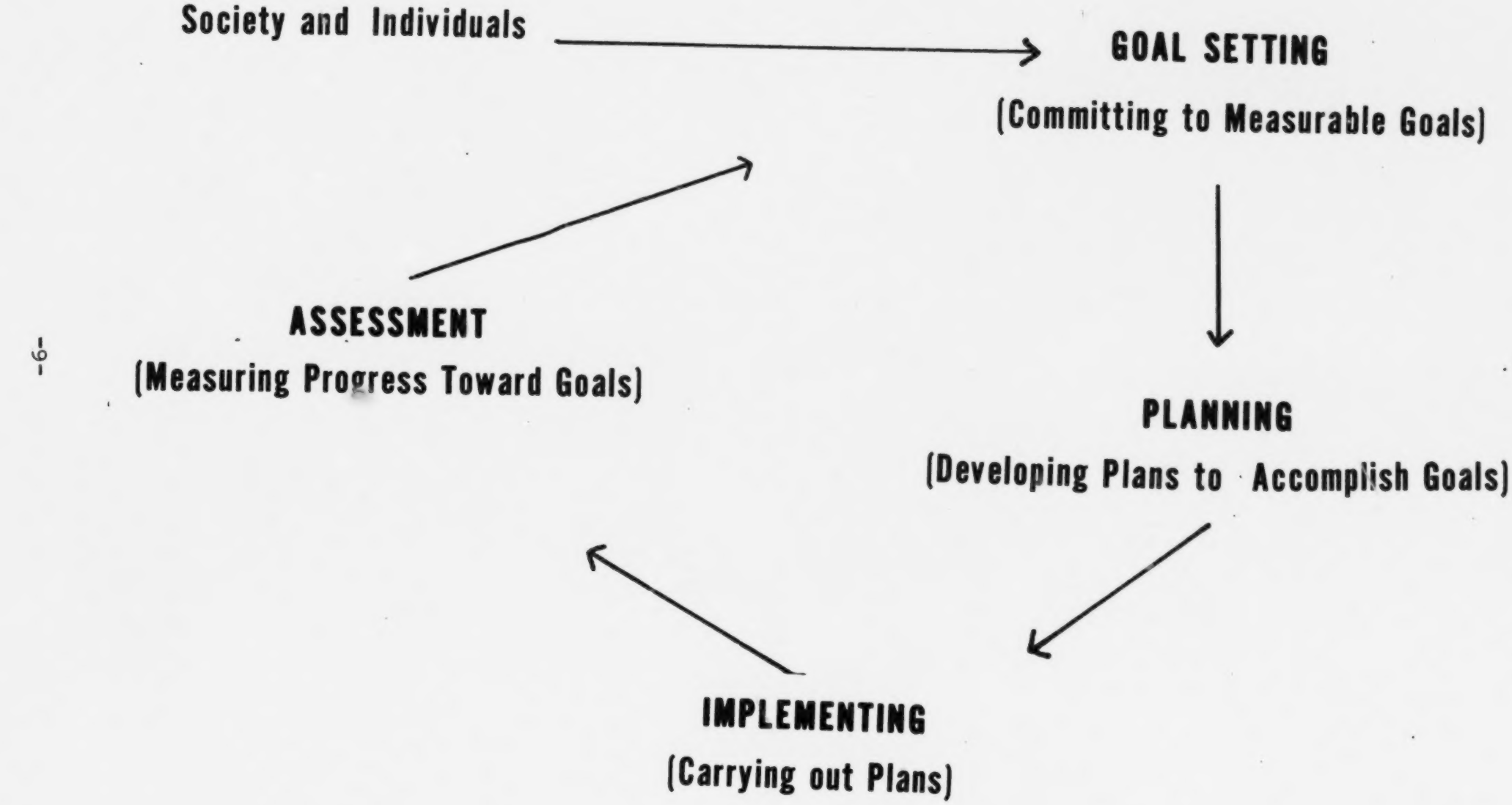
Evaluation is a component of each phase of the management system. During the Goal Setting phase evaluation assists in the clear definition of goals by insisting that the goal include a measurement dimension. Mager's behavioral goals are defined in much the same manner by including the acceptable evidence of attainment and the conditions in which measurement will occur. Without this input the evaluation must assume the exact meaning of the goals and the evaluator must assume that a valid measure has been used.

In the Planning phase evaluation is concerned with the congruence of goals and activities planned to attain those goals. Are the planned activities apt to result in the attainment of the measureable goals?

Evaluation asks a similar question in the Implementing phase. Are the plans being implemented in a manner that is most likely to facilitate attainment of the goals? In this system evaluation of Planning and Implementing are considered as process evaluation and are not included as part of the system developed.

Figure 1

A MANAGEMENT SYSTEM



The Assessment phase includes the collecting of data as defined by the measurable goals, organization, analysis, and reporting of the information. The assessment phase corresponds most closely to what is most often defined as evaluation in the literature. Figure 2 illustrates the assessment phase as a process of delivering, obtaining and providing decision alternatives.

The total system for an evaluation and planning model for a State Advisory Council for Vocational Education is, as the name implies, more than evaluation of results (See Figure 3). Formulation of goals and criterion questions provides the basic framework. The Advisory Council would, in relation to needs of society and individuals, first consider the statewide goals, add, revise, or eliminate goals, and commit the Council to a set of specific, measurable goals. Following planning and implementation and the collection and use of data to measure attainment of goals, the Council interprets results and makes recommendations for decision making and action to more nearly adequately meet the goals to which the Council is committed. Evaluation is not a separate activity isolated from the real action.

Developing Goals

The first phase is to develop a set of goals for vocational education. This is not an attempt to establish new goals; nor does it imply that those who operate programs of vocational education have no goals. It requires specific statement of a set of goals, and general acceptance of those goals as the responsibility of vocational educators from the Council's perspective.

The goal setting process involves review of federal legislation, the

Figure 2

THE RELATIONSHIP OF EVALUATION TO DECISION MAKING

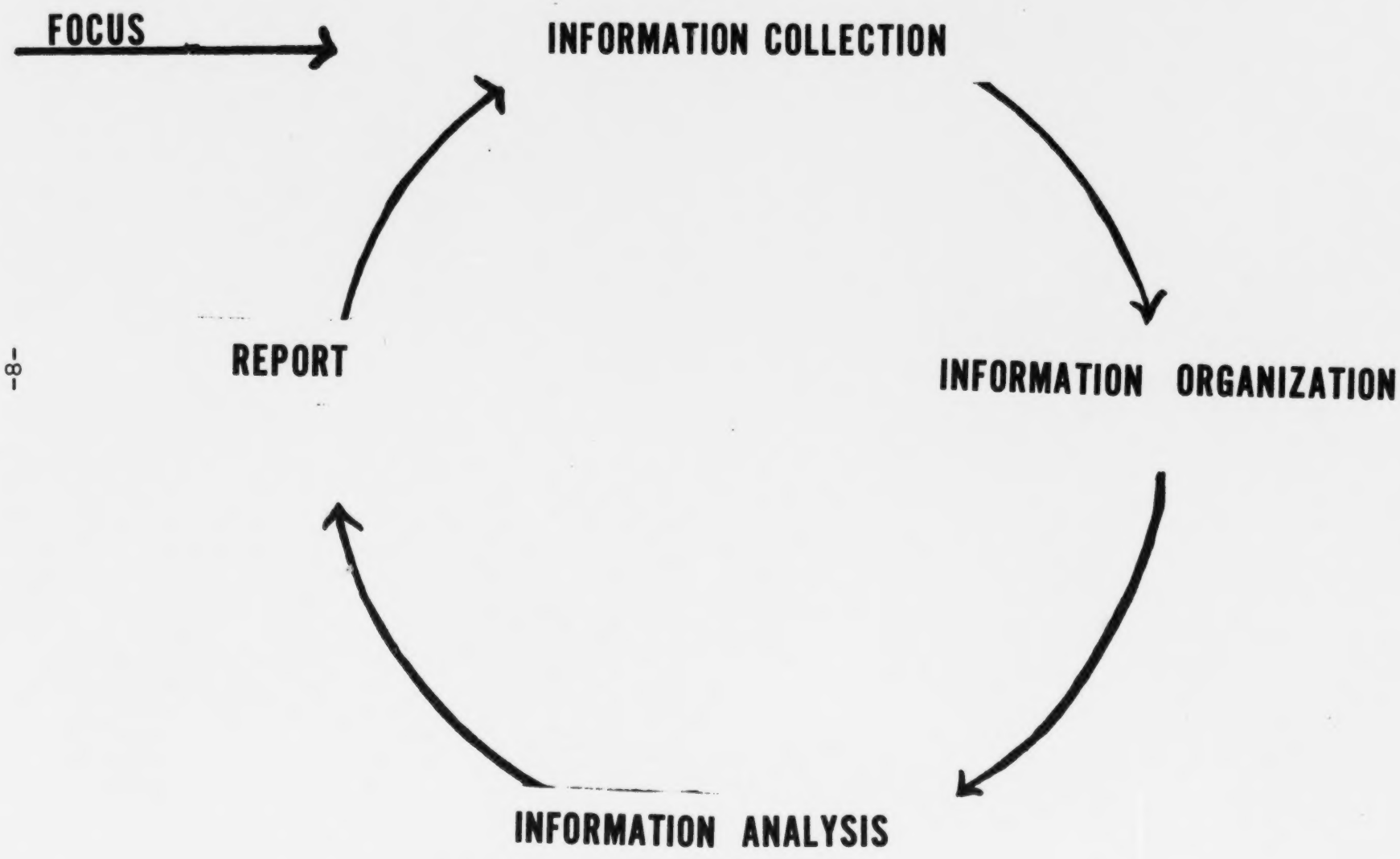
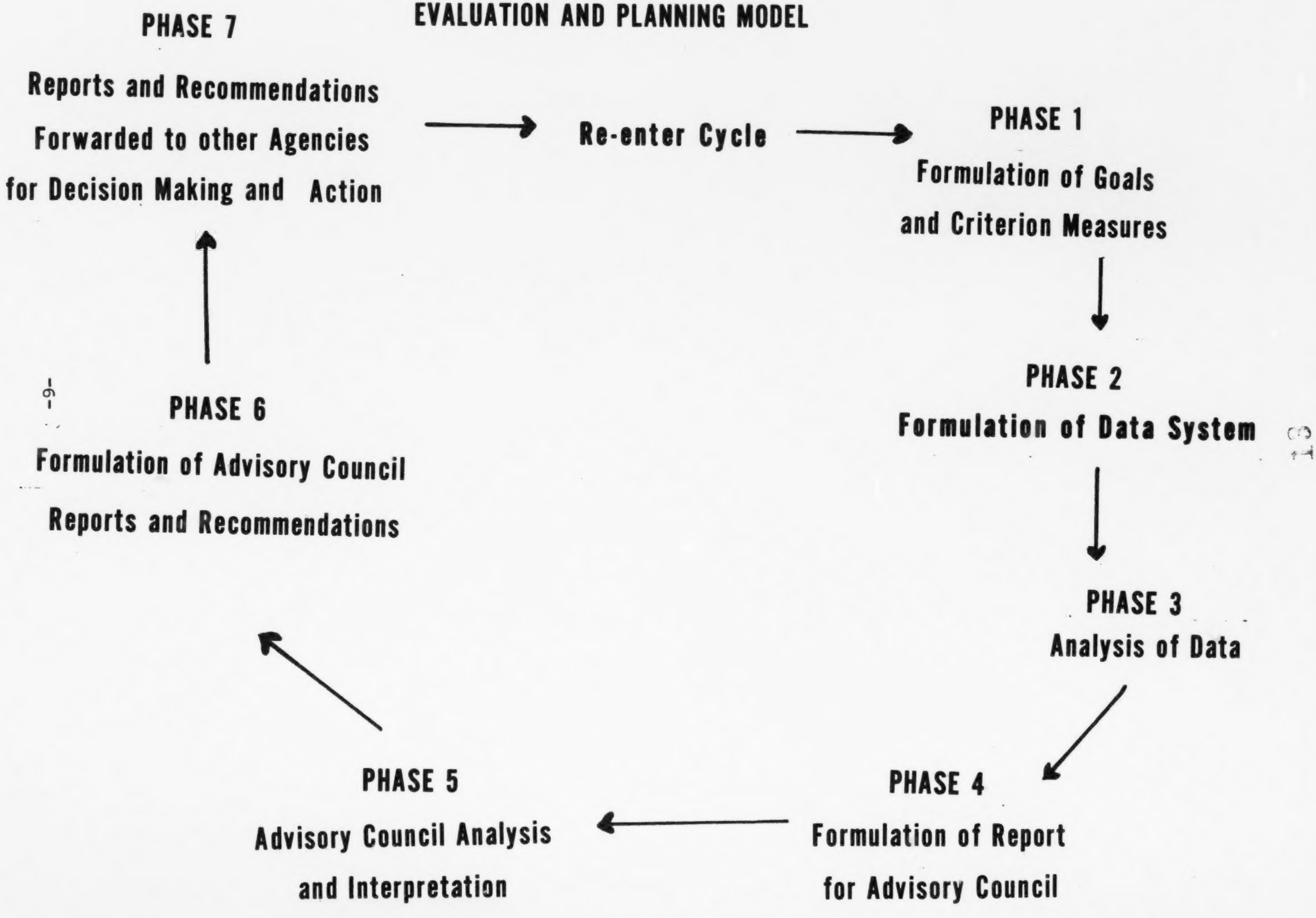


Figure 3

EVALUATION AND PLANNING MODEL



State Plan for Vocational Education, the 1970 Report of the State Advisory Council, the State Education Professional Development Plan, and State Department budget documents as well as discussions with leaders in vocational education. A list of goals is to be deduced from the review.

The tentative goals are studied and modified by the Evaluation Sub-Committee of the State Advisory Council, revised if needed and adopted by the group and re-affirmed by the State Advisory Council. The goals ideally should be accepted by the State Division of Vocational Education.

The following seventeen goals were deduced from such a process and are used for illustration. The goals are grouped into three categories. The first group is Directional Goals--those that indicate the direction or emphasis that vocational education should take. The second group is Educational Level Goals--those that focus on the unique needs of individuals at each stage of their vocational and educational development. The third group is Supportive Goals--those that are needed to facilitate the accomplishment of the other goals.

The Directional Goals and the area of concern are:

Accessibility Goal

To provide for all citizens of the State ready access to realistic vocational education programs planned for actual or anticipated employment opportunities. Each program must develop the highest possible potential for career growth.

Manpower Goal

To provide persons served by vocational education with skills, attitudes, and competencies compatible with the present and future needs of the state's employers.

Holding Power Goal

To contribute to the holding power of educational agencies and reduce dropouts.

Career Development Goal

To organize a developmental vocational education program beginning in the elementary grades and continuing through each succeeding educational level until adulthood. Vocational education programs would be a core around which other school experiences could be organized.

Involvement Goal

To increase the meaningful and constructive involvement of local citizens, parents, students, local educators, and employers in the planning, operation, and evaluation of vocational education.

The Level Goals and the area of concern are:

-Grades K through 6

To provide students at the elementary grade level with experiences necessary to acquire positive attitudes toward work and an increased knowledge of themselves in relation to work.

-Grades 7 through 9

To provide students in grades seven through nine with experiences helpful for or contributing to making future education and occupational decisions, for seeing the relationships between school and future employment, and for acquiring employability skills.

-Grades 10 through 12

To provide students in grades 10 through 12 with entry-level skills for broad occupational areas or preparation for post-secondary vocational education.

-Grades 13-14

To provide out-of-school youth in all communities of the state with ready access to pre-employment training and upgrading in specific semiskilled, skilled, technical, and subprofessional occupations.

-Adult

To provide adults in all communities of the state with ready access to pre-employment training and upgrading in specific semiskilled, skilled, technical, and subprofessional occupations.

-Consumer Education

To assist consumers to make wise use of incomes, improve the home environment, and improve the quality of family life.

The Supportive Goals and the area of concern are:

Teacher Supply Goal

To provide specific appropriations for teacher education necessary to prepare and upgrade a staff to implement the program.

Guidance Goal

To provide a vocational education program which helps develop positive work attitudes, facilitates good occupational and educational choices, makes possible employee upgrading and helps participants find suitable employment.

Finance Goal

To provide adequate finance for vocational education and distribute funds in an equitable and effective manner that will provide incentive for expansion and quality.

Leadership Goal

To provide leadership and consultation to local education agencies in program operations, program planning, and evaluation.

Innovation Goal

To provide for the rapid dissemination of innovations and research results to keep vocational programs up-to-date.

Image Goal

To improve the public understanding of and attitude toward vocational education.

The goals are the Council perspective of what should be the areas of concern for vocational education. The goals paint a picture of vocational education as it should be in the best judgement of the Council. The goals define the areas of legitimate activity with which vocational education should be involved.

Criterion Questions and Quantitative Measures

When the goals have been written and accepted the next step is to clearly define the goals in terms of acceptable evidence of attainment. Criterion questions and quantitative measures are used for that purpose.

A criterion question divides a goal into smaller questions and the combined answers indicate the degree to which the goal has been accomplished. A goal may require only one criterion question, but more likely, will require several. Criterion questions are suggested by planning data, by experience in vocational education, by experts, and by Advisory Council members.

An example of criterion questions related to one goal is as follows:

Goal--To increase the accessibility of vocational programs for those populations to be served.

Criterion Questions:

1. To what extent are persons served in economically depressed areas?
2. To what extent are persons in areas of high population density served?

3. To what extent are disadvantaged persons served by vocational education?
4. To what extent are handicapped students served by vocational education?
5. To what extent can curricula be adjusted to increase accessibility?
6. To what extent are facilities to be expanded to increase accessibility?
7. To what extent are vocational offerings congruent with vocational interests and occupational goals of students?

Quantitative measures for each criterion question are taken from the State Plan for Vocational Education and other state planning and budget documents. Most of the quantitative measures may be determined from state planning documents. Table 1 is taken from the Georgia State Plan for Vocational Education and is typical of the data and format requested through federal guidelines.

One technique is to transfer each quantitative or numerical measure from the State Plan and other selected documents to 3 x 5 cards (see Figure 4). With one quantitative measure per card, the cards may be sorted by criterion question. Sometimes the same quantitative measure may be considered to be a measure of more than one criterion question.

The 3 x 5 cards should be kept after completion of the development of quantitative measures of criterion questions. The cards are utilized later in developing data collection for the system.

Table 1--A State Plan Page as Source of Quantitative Measures

Vocational Education Objectives

Secondary Vocational Program Objectives

	Current Status	1971	1975
1. Secondary vocational enrollment	104,000	113,022	147,453
a. Handicapped (Total)	3,916	5,682	11,705
1) Educable Mentally Retarded	970	1,058	1,461
2) Other	2,946	3,624	4,744
b. Disadvantaged (Total)	12,518	15,878	30,234
1) Two grades below level	6,204	7,089	9,792
2) Less than $3000 per family	7,041	8,000	11,230
c. Percent of secondary students entering post-secondary vocational schools	21%	24%	30%
d. Total number of instructional programs by OE Code	107	120	199
e. Percent in field for which trained	61%	62%	66%
2. Pre-vocational (Total)	43,886	50,525	62,454
a. Handicapped	4,389	4,828	5,793
b. Disadvantaged	24,137	25,344	28,965
3. Geographic Areas			
a. Proportion of Vocational students grades 9-12 who come from economically depressed areas	28,759 (28%)	29,466 (26%)	29,411 (20%)
b. Proportion of pre-vocational students grades 7-9 who come from economically depressed areas	4,500 (10%)	4,950 (9%)	5,400 (9%)

Figure 4

EXAMPLE OF QUANTITATIVE MEASURE TRANSFERRED TO 3X 5 CARD FROM A STATE PLAN FOR VOCATIONAL EDUCATION

4950* pre-vocational students will be enrolled from economically depressed areas.

*Note that the number is circled on Table 1 to indicate the source of the quantitative measure shown on the 3 x 5 card.

Quantitative measures for one criterion question were:

1. CRITERION QUESTION

To what extent are persons served in economically depressed areas?

QUANTITATIVE MEASURES

a) 2320 exploratory students be enrolled from economically depressed areas
b) 4950 pre-vocational students (7-9) will come from economically depressed areas
c) 29,466 vocational students in grades 9-12 will come from economically depressed areas
d) 1703 post-secondary students will enroll from economically depressed areas
e) 19,060 adults will be enrolled from economically depressed areas
f) Establish ____ adult programs in economically depressed areas
g) 2,432 part G cooperative students reside in economically depressed areas
h) 1086 Part B cooperative students reside in economically depressed areas
i) 225 post-secondary work-study students from economically depressed areas
j) 425 secondary work-study students enrolled from economically depressed areas

The specific numbers are taken directly from state planning documents. The figures represent specific commitments by the State Department of Education for delivery of services. Data collected and analyzed in relation to the quantitative measures taken from state planning documents can be used to evaluate state accomplishment in relation to state commitment.

With goals for vocational education formulated and adopted by the Advisory Council, criterion questions written, and quantitative measures identified; acceptance of the system by vocational education personnel should be sought. If personnel in the field accept the system, results are more apt to be accepted as valid and suggested changes may be more easily accomplished.

The seventeen goals, with criterion questions and quantitative measures are then duplicated in booklet form with a reaction page opposite each page of the evaluation material. All state staff in vocational education and all local vocational program administrators should be asked to react to the system. It is assumed that those affected by evaluation should be involved in the evaluation.

Figure 5

Example of a Reaction Page Used for Feedback About the System

THIS PAGE IS FOR YOUR REACTIONS

GOAL I

A) Is the goal clear and understandable — Yes ___ No ___
COMMENTS:

B) How would you rank the priority of this goal for vocational education in the state? — High ___ Average ___ low ___
COMMENTS:

1. CRITERION QUESTION

A) Would you accept the answer to this question as a partial measure of Goal I? — Yes ___ No ___
COMMENTS:

B) Would you accept the quantitative measures as evidence to answer the criterion question? — Yes ___ No ___
COMMENTS:

Data Needs

Data required for evaluation are outlined by the criterion questions and quantitative measures. The initial needs are the quantitative measures. One is always tempted to expand the data base to include additional information that may be needed or would be "nice to know". Such temptations should be resisted. If the goals have been properly developed, the criterion

questions are adequate, and the quantitative measures acceptable to answer the criterion questions, then the data base has been properly defined. It need not--indeed should not--be expanded at this stage of the system.

Data Collection

Data collection begins with identification of data sources. Advisory Councils do not have the resources and should not need to set up a complete data system separate from existing sources. Use of data collected by others does not limit the independence or autonomy of the Council.

Step I

The first step in data collection is to identify data currently collected by the State Department of Education and Division of Vocational Education. The 3 x 5 cards shown in Figure 3 contain the statement of quantitative measures and constitute the data required. Each associate director, program supervisor, consultant and planner--anyone who does or should collect data--should be asked to sort the 3 x 5 cards into three (3) categories as shown in Figure 6: 1) data presently collected; 2) data relevant to the program but not now collected; 3) data neither relevant nor collected.

Figure 6

Sorting Quantitative Measure Cards for Data Categories

1. Relevant and Collected Now	2. Relevant but not now collected	3. Neither relevant nor collected

Step II

The second step is based on the data now collected. The individual should be asked to indicate the date data are collected, how the data are processed, and to identify the data collection instrument(s). One can then make a decision on the useability, timeliness, and validity of the data already available.

Step III

The third step is to identify data needed to be collected. The basic source of this information is the categories of data sorted as (1) relevant but not now collected and (2) not relevant. Added to these are items from step one considered as (1) not useable as now collected, (2) not collected at a useable time, and/or (3) not valid as now collected.

Data to be collected can be sorted and classified by possible sources and grouped. Common groupings include from vocational administrators, from students, from teachers, from other agencies, from state staff, from parents, and from employers.

Priorities for collection should be based on the cost of collection, the possible validity, the difficulty of obtaining the data, and the essential need and alternatives. Generally, some data will be classified as not worth the expenditure of resources for collection.

Step IV

The fourth step is to develop instrumentation and collection procedures for the data identified as needed but missing and of high enough priority to warrant collection. Collection procedures are dictated by the data, the source, and the resources.

The major portion of the data needed relative to the quantity of

vocational education available to target populations is generally available and being currently collected. Data that could be categorized as measures of quality rather than quantity is not generally available and is difficult to collect. It is recommended to concentrate on available data while setting up the evaluation system. Priorities for additional needed data can be determined and added to the system in subsequent years.

Analysis

Data analysis and interpretation is performed within the framework of the goals, criterion questions, and quantitative measures. Consideration of attainment of measures can be percent of the goal, percent of potential population, portion of total vocational effort, etc. Figure 7 illustrates data in answer to one criterion question.

Figure 7

Data Analysis for the Criterion Question,

"Are Vocational Programs Accessible to Persons in Economically Depressed Areas?"

Target Group		Potential Population	Current[1] Goal	Current Status	Percent of Goal	Percent Served
Exploratory	Grade (1-6)	97,740	2,320	1,650	71	1.7
Pre-vocational	(7-9)	44,716	4,950	6,263	126	14.0
Secondary	(10-11)	114,818	29,466	59,985	203	52.0
Post-Secondary	(13-14)	99,547	1,703	1,703	100	1.0
Adults		325,116	19,060	16,487	86	5.0
Part G Coop		NA	2,432	662	27	---
Part B Coop		NA	1,086	NA	--	---
Post-Secondary Work Study		NA	225	150	66	---
Secondary Work-Study		NA	425	425	58	---

[1]Current Goal is taken directly from state planning documents. Figures represent persons served in Economically Depressed Areas.

One may be tempted to analyze the data in a number of other ways. Imagination in use of data is commendable. However, in this case the goals to be measured for progress toward attainment, the criterion questions and the quantitative measures should have been carefully developed and accepted in the early stages of evaluation. Analysis in this system should be limited to the specific purposes. Imagination should be used to suggest changes in the next evaluation cycle.

Reporting

The primary report is a statistical summary that indicates the degree of attainment of each goal area. The report format for each goal area includes a statement of needs or rationale for the goal statement, the goal and criterion questions for measurement, present status by criterion question and quantitative measures, an analysis of the adequacy of the goal area, and recommendations relative to the goal. (See Appendix A.)

The reporting of data should be within the framework of the goals, criterion questions, and quantitative measures. It should be reemphasized that the scope of the evaluation is defined by the goals. The data needs are dictated by the criterion questions and the quantitative measures. The report should reflect the scope indicated by the goals and should interpret data relative to the goals. Expansions beyond these should be avoided at this stage. Table of contents for one report resulting from implementing the system outlined can be found in Appendix B.

The statistical report can be used by the Advisory committee to form general recommendations to several audiences and can be digested for a popularized version to distribute to the lay public.

It is in developing recommendations and preparing specialized reports for each audience that the Council demonstrates its antonomy and independence. Recommendations may go to the State Board of Education, the State Legislature, the State Department of Education, governing bodies of teacher education institutions, the Governor and others that make decisions that influence vocational education.

Two pitfalls may occur in this phase. First, the person implementing the system for the Council and responsible for writing the primary statistical summary may be tempted to interpret the data to the extent of writing the recommendations for the Council. The second pitfall is that the Council ignore the implications of the data and/or go far beyond the data in making recommendations. It is suggested that the twin pitfalls be avoided and the good judgment of the Council be encouraged and relied on.

Recommendations of one Council that used the system described can be found in Appendix C.

Concluding Statement

The legislative mandate contained in the 1968 Amendments to the Vocational Education Acts of 1963 created and funded State Advisory Councils with responsibility to conduct independent evaluations of vocational programs. These Councils are more likely to succeed in their appointed task if the new role is recognized and a system of evaluation designed congruent with that role.

The evaluation system described herein recognizes the new role, is designed to be congruent with that role, and has been used successfully by a State Advisory Council.

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APPENDICES

Appendix A

Directional Goals

In this section the five Directional Goals adopted by the Advisory Council for Vocational Education are considered in detail. Each goal is analyzed in terms of the kinds of measures of attainment, current status and evidences of the extent of attainment, the adequacy of the goal area, and the Council's recommendations for improvement.

The Directional Goals and the area of concern are:

-Accessibility Goal

Provide for all Georgians ready access to realistic vocational education programs planned for actual or anticipated employment opportunities. Each program must develop the highest possible potential for career growth.

-Manpower Goal

To provide persons served by vocational education with skills, attitudes and competencies compatible with the present and future needs of Georgia's employers.

-Holding Power Goal

To contribute to the holding power of educational agencies.

-Vertical and Horizontal Interlocking Goal

Organize a developmental vocational education program beginning in the elementary grades and continuing through each succeeding educational level until adulthood. Vocational education programs would be a core around which other school experiences could be organized, using the natural motivation of youth toward careers.

-Involvement Goal

To increase the meaningful and constructive involvement of local citizens, parents, students, local educators, and employers in the planning, operation, and evaluation of vocational education.

Accessibility to Vocational Programs

Need

The 1968 Amendments mandate vocational education for all persons of all ages in all areas. In addition, special efforts are required to reach persons who have not been reached by traditional programs. It is no longer enough to merely make vocational education available. The effort must be made to take vocational education to the people and to provide the extra help so that each individual can profit from vocational education.

Special emphasis is directed toward serving people who live in economically depressed areas, in areas of high employment, in areas of high population density, and who are disadvantaged or handicapped.

Goal

The Georgia Advisory Council for Vocational Education recommends that ready access to realistic vocational education programs be provided for all Georgians. Each program must develop the highest possible potential for career growth.

Accessibility to vocational programs is measured by:

1) Persons served in economically depressed areas
2) persons served in areas of high population density
3) disadvantaged persons served
4) handicapped persons served
5) flexibility of curricular patterns
6) facilities expansion
7) congruence of vocational offerings with student interests and occupational goals

Status

Accessibility to vocational programs for persons living in economically depressed areas was attained to the extent that specific objectives for various target populations were met. See Table 2 for a summary.

Table 2

Accessibility Objectives in Economically Depressed Areas

Target Group		Potential Population	Current Goal	Current Status	Percent of Goal	Percent Served
Exploratory	Grade (1-6)	97,740	2,320	1,650	71	1.7
Pre-vocational	(7-9)	44,716	4,950	6,263	126	14.0
Secondary	(10-12)	114,818	29,466	59,985	203	52.0
Post-Secondary	(13-14)	99,547	1,703	1,703	100	1.0
Adults		325,116	19,060	16,487	86	5.0
Part G Coop		NA	2,432	662	27	---
Part B Coop		NA	1,086	NA	--	---
Post-Secondary Work Study		NA	225	150	66	---
Secondary Work-Study		NA	425	425	58	---

Areas of the state designated as economically depressed (EDA) are shown on Map 1 in Appendix C. Adult and post-secondary vocational programs are available in each EDA through the statewide system of area vocational technical schools. Regular vocational education programs are avaible to exploratory (K-6), pre-vocational (7-9), and vocational (10-12) students as shown on Map 2 in Appendix C. In addition, special projects have been funded in economically depressed areas as shown on Map 2.

Accessibility to vocational programs for <u>persons living in areas of high population density</u> was attained to the extent target populations were served as shown on Table 3.

Table 3

Attainments of Accessibility Objectives in Areas

of High Population Density

Target Group	Potential Population	Current Goal	Current Status	Percent of Goal	Percent of Potential
Exploratory (K-6)	NA	7,500	0	--	---
Pre-Vocational (7-9)	436,800	27,789	25,467	91	5.8
Secondary (10-12)	292,079	42,948	61,889	144	21.1
Post-Secondary (13-14)	709,785	8,292	8,507	102	1.1
Adult	2,285,806	73,265	60,382	82	2.6
Part B Coop	NA	6,181	NA	--	---
Part G Coop	NA	757	2,059	271	---
Work Study (10-12)	NA	400	265	6	---
New Area Secondary Facilities	NA	7	4	57	---

Areas of the state designated as high population density are determined by the total enrollment of secondary students in the school system and are shown on Map 3 in Appendix C.

Programs are accessible to disadvantaged persons to the extent shown in Table 4. The programs are designed for persons who have academic, socioeconomic, cultural, or other handicaps that prevent them for succeeding in regular vocational education or consumer and homemaking programs designed for persons without such handicaps, and who for that reason require specially designed educational programs or related services.

Table 4

Attainment of Accessibility Objectives for Disadvantaged Persons

Target Group	Current Goal	Current Status	Percent of Goal
Pre-vocational	---	22,768	--
Secondary (10-12)	34,839	33,043	95
Part G Coop	3,332	2,317	70
Part B Coop	2,223	NA	--
Post-Secondary (13-14)	4,268	2,331	54
Adults	16,651	23,650	142
Secondary Grants	1,500	1,103	74
Post-Secondary Grants	750	502	66.9

Location of program offerings for the disadvantaged under special funding, exemplary or pilot programs, and new services are shown on Map 4 in Appendix C.

Programs of vocational education are accessible to handicapped persons as shown in Table 5. The programs are designed for the mentally retarded, hard of hearing, deaf, speech impaired, visually handicapped, seriously emotionally disturbed, crippled, or other health impaired persons who by reason of their handicapping condition cannot succeed in a regular vocational or consumer and homemaking program designed for persons without such handicaps, who for that reason require educational assistance or a modified vocational or consumer and homemaking educational program.

Table 5

Attainment of Accessibility Objectives for Handicapped Persons

Target Group	Potential Population	Current Goal	Current Status	Percent of Goal	Percent of Potential
Total handicapped	493,081	18,076	25,297	140	5.1
Secondary (grant award)	---	1,500	NA	---	---
Post-Secondary (grant award)	---	400	1,549	387	---
Part B Coop	---	11,101	NA	---	---
Adults	---	546	4,162	780	---
Part G Coop	---	395	251	64	---
Exploratory (1-6)	---	---	---	---	---
Pro-Vocational (7-9)	---	926	4,518	488	---

Special project monies designed to provide vocational education to meet the special needs of handicapped persons are allocated to selected school systems in Georgia as shown on Map 4 in Appendix C.

Vocational education has become more accessible to students through various methods of increasing the flexibility of the curriculum. Changes in curriculum are designed to meet the unique needs of individual students while maintaining the tradition of providing graduates with job competencies needed by Georgia employers.

The curricular changes include:

A) Interdisciplinary secondary programs (17 schools)
B) Agriculture interlocked with academic programs in 8 secondary schools
C) Post-Secondary T & I curriculums that provide job entry skills each quarter
D) More flexible technical programs

E) Various training time options in post-secondary schools
F) Cluster curriculums adopted in 17 secondary schools
G) Secondary T & I programs scheduled in time blocks of less than 3 hours

More vocational programs become accessible to secondary students with the expansion of area vocational high schools. Five new schools became operational during the year. Enrollment in T & I programs in new area vocational high schools now in operation increased by 974 students compared to a projected increase of 4200 students. The location of area vocational high schools is shown on Map 5 in Appendix C.

Vocational education becomes truly accessible when each student has available a program congruent with his unique vocational interests; his occupational goals; and in job skills that are in demand. Most vocational education has been planned more to meet employer needs than to meet needs of the individual. Whenever possible, the vocational program should meet the needs of both.

In a pilot study conducted this year the occupational plans and vocational interests of students in one Georgia high school were inventoried. The plans and interests of the students were congruent with manpower needs in the area. The vocational program in the school was congruent with some manpower needs of the area but not with the interests and plans of students. The present program is compared with a program based on student plans and interests in Appendix D.

Adequacy of the Goal Area

Though vocational education is not yet accessible to every Georgian on an equitable basis, much progress has been made in the areas of emphasis--particularly in re-designing vocational education to include additional assistance to meet the needs of disadvantaged and handicapped persons.

Special consideration could be given to rural areas of low population density.

Attention to the percentage of potential population served in each category rather than total numbers would add more realistic measures.

The goal area of accessibility is one that is adequately defined.

Recommendations

1. The special needs of smaller rural schools and of large city systems are not being met to the degree that needs of middle sized systems are met. Strategies need to be identified to develop vocational education to serve potential populations in rural and large city areas.

2. Programs to identify potential dropouts and keep them in school need more emphasis.

3. The interests and characteristics of students should receive more consideration when developing local plans for comprehensive vocational programs.

Appendix B

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Appendix C

RECOMMENDATIONS TO THE STATE BOARD OF EDUCATION*

The State Board of Education has for many years advocated the education of the whole man. This concept of the whole man includes the individual as a member of a working society, with the skills and attitudes necessary for selecting and managing his own career destiny. It also includes the responsibility for preparing every student equally well for his next step in life regardless of the direction his decision may take.

Implementation of innovative programs such as the Disadvantaged and Handicapped Projects, Coordinated Vocational and Academic Education Programs and Programs of Education and Career Exploration provide evidence of the Board's support for the theory that classical and career education can be fused into a unified learning experience for the student. The results of these programs have clearly demonstrated that many young people can be taught academic subjects more effectively in the context of career objectives. However, these views have been reflected only infrequently and inconsistently at the local operational level.

Part of the barriers to implementing career and vocational education stem from some of the traditional attitudes and aims of education inherited from past needs and priorities. These priorities may no longer be relevant to a dynamic, diversified and ever changing society. What is the purpose of education? Whom should we educate? For what is education accountable? These are some of the questions that educators must re-examine if we are to meet the challenge of the 1970's. As new alternatives to the traditional patterns of education become more evident, and more urgent, a REDIRECTION OF

*Recommendations were written by the Georgia Advisory Council for Vocational Education for their 1971 Annual Report.

EDUCATIONAL EXPENDITURES is imperative to enact appropriate educational changes.

The development of a highly complex society demands that the educational establishment give greater focus and priority to preparing all students for the task of finding successful, productive and satisfying roles within that society. In other words, existing educational programs and funds must be redirected to include education for earning a living in a working world which offers few opportunities to the unskilled laboror or the bearer of a general diploma.

Such changes in priorities and attitudes will occur only to the extent that local school personnel and community leaders are involved in the reassessment and development process. To increase such involvement, the following recommendations are made to the Georgia State Board of Education:

1. Establish minimum criteria for a developmental program of career and vocational education in grades one through post-secondary and adult. School systems or clusters of schools within a system, that redirect a prescribed portion of existing resources toward meeting such criteria should be rewarded through annual incentive grants promoting career education.

2. Apportion school systems into geographical, manageable areas in which a manager would be assigned to assist in planning and developing a comprehensive program of career and vocational education and monitoring and evaluating local school systems' adherance to local plan for career and vocational education. Teannical assistance in existing occupational areas would be provided local systems by existing service specialists.

3. Give local systems greater responsibility for the planning, monitorning, and evaluation of career and vocational programs through

   (a) making the annual local plan for career and vocational education the sole contract between the State Board of Education and the local school system and through;

   (b) requiring the local board of education to take formal action on the local plan for career and vocational education prior to its submission to the State Department of Education.

4. Examine the system of distribution of funds to offer all students of all systems an equal opportunity to participate in vocational programs. The present system under which 28 percent of the vocational funds are allocated to schools serving 48 percent of Georgia's student population cannot hope to meet the needs of the growing urban areas.

5. Streamline financial and reimbursement procedures for career and vocational education so that

   (a) local systems have more discretion in spending career and vocational grants in areas of greatest need;

   (b) all vocational funds are expended and approved through local plans for career and vocational education;

   (c) the local systems relate to their assigned manager in the State Department of Education, Division of Vocational Education regarding financial and reimbursement matters;

   (d) reduce the number of monthly requisitions submitted by local systems for career and vocational reimbursement.

6. Revise its allocation procedures for career and vocational education so that at least the following factors are used in determining the allocation renewed by a local system

   (a) The extent to which the local system proposes to meet the criteria for a developmental career and vocational education program;

   (b) the size of the school system;

   (c) the extent to which the school system has met the previous year's accountablity objectives.

7. Establish a statewide information system necessary for state level management of career and vocational education programs.

8. Establish an office of career, vocational and manpower education at the highest possible operating level within the Georgia Department of Education.

To measure program effectiveness, the following recommendations are made to the Georgia State Board of Education:

1. Require each local system to establish an advisory committee for career vocational education. This local advisory committee, composed of the employing community, civic, educational leaders, and students, would have the responsibility for

   (a) reviewing and recommending the annual local plan for career and vocational education to the local board;

   (b) for conducting an evaluation to determine the extent to which the local plan was carried out.

   (c) for submitting through the local board to the State Board of Education a copy of their findings.

RECOMMENDATIONS TO GOVERNOR AND GENERAL ASSEMBLY

It would be easy for the general assembly to say that the system has failed--meaning that the education system had failed to prepare every student for his next step after high school. Yet all policy-making segments of our state government, including the governor and the general assembly, are a part of the system and, as such, share the burden of these educational shortcomings.

The general assembly has never legislated that public education is accountable for providing, with equal quality and enthusiasm, those educational experiences which would prepare all Georgia's students to participate successfully in a work-oriented society, regardless of their ultimate career choices. Since 1964, the data of the latest revision of the Minimum Foundation Program for Education Act, the South has added more manufacturing jobs than any other area of the nation, while the demand for unskilled labor has steadily decreased. However, our educational offerings do not reflect this trend in terms of student preparation. The fact that less than three percent of the state annual expenditures for education goes for career and vocational education indicates less than enthusiastic commitment for a total concept of education that includes preparing every individual according to his interests, life tasks and needs.

The Constitution for the State of Georgia states that "... the provisions of an adequate education for the citizens shall be a primary obligation of the State of Georgia, the expense of which shall be provided for by taxation..." (Article VIII, Section 1, paragraph 1, code 2-6401).

This statement guarantees to each citizen access to a free public education that is adequate for him. To make this a reality for all Georgia

citizens, the general assembly must redefine adequate education in light of today's economic and social setting. Any system which fails to prepare and assist each individual to successfully take his next step beyond public education cannot be considered an adequate education.

A balanced amount of funds earmarked specifically for career and vocational education would emphasize the general assembly's intentions to provide this meaningful preparation for all Georgia's students. Indeed, the general assembly cannot expect a more comprehensive approach to career and vocational education on the part of local school systems unless funds are allocated accordingly.

Making education adequate for a vast majority of Georgia citizens will require merging the existing education program of comprehensive career with vocational education. Such a program would provide all individuals a "developmental vocational process," enabling them to progress successfully from childhood into an adult work role, and through a career.

A visible commitment by the governor and the general assembly is required to achieve these goals toward career and vocational education. Such a commitment can best be expressed in special legislative action.

A. The council recommends that the general assembly communicate its expectations to the educational community by amending the Minimum Foundation Program of Education Act to enable the State Board of Education to

   1. establish deadline dates for each school system to meet the minimum criteria established by the Board of Education for a developmental program of career and vocational education;

   2. hold local school systems accountable for preparing and assisting each student to implement his next step, whether that next step be further education, work or both, and for reducing the flow of school dropouts.

B. For the general assembly to facilitate implementation of its expressed expectations, the council recommends that

1. funds for career and vocational annual incentive grants be allocated to local school systems. The grant could consist of

a. career and vocational teaching units based on the high school population as follows:

No. of students enrolled Grades 9-11	No. of teaching units
over 1,000	up to 3
500-999	up to 2
499 or less	1

b. an additional 20 percent of the grant funds for each grant for materials and equipment to be matched dollar per dollar by the local school system;

c. the level of the annual incentive grant for career and vocational education;

(1) the local system plans for meeting the minimum criteria for a developmental career and vocational education system,

(2) the extent to which the local system met their pre-stated accountability objectives for the preceding school year.

C. Funds be appropriated to assist in constructing and equipping secondary and post-secondary career and vocational education facilities. Any school system using state funds for construction, and meeting the criteria set by state board for a developmental career and vocational education program should be given first priority by the legislature. Such facilities in alleviating overcrowded schools.

D. Direct operating funds be appropriated for conducting "quick start" in industrial training programs for new and existing industry.

E. Presently less than three percent of the state educational expenditures are directed toward meeting the career and vocational needs of Georgia's citizens. In order to correct the obvious inconsistency between needs and expenditures, the council recommends increases in state appropriations for career and vocational education for the 1972-74 biennial budget.

F. Funds be appropriated annually at the rate of 10 percent of equipment investment to replace worn-out and obsolete equipment in the secondary and post-secondary area vocational technical schools, in order to maintain up-to-date instruction programs.

To clarify and delineate the role of the several state agencies in career vocational and manpower education, it is recommended that the general assembly

1. designate the State Board of Education responsible for career vocational and manpower training and education of less than a baccaluareate level and specify the particular role of other state agencies in this area;
2. designate the State Advisory Council on Vocational Education as the state coordinating council for career, vocational and manpower development which will serve to facilitate cooperation and planning among the several agencies of state government.